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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,911	09/20/2003	Robert W. Cameron	P2118	7050
30143	7590	12/19/2005	EXAMINER FERGUSON, MICHAEL P	
TODD N. HATHAWAY 119 N. COMMERCIAL ST. #620 BELLINGHAM, WA 98225			ART UNIT 3679	PAPER NUMBER

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/665,911

Applicant(s)

CAMERON, ROBERT W.

Examiner

Michael P. Ferguson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 12, 13 and 25 are objected to because of the following informalities:

Claim 12 (line 3) recites "of said flange". It should recite --said flange--.

Claim 13 (line 3) recites "of said flange portions". It should recite --said flange portion--.

Claim 25 (line 3) recites "a hoop portion". It should recite --a hook portion--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Nealy (US 5,137,483).

As to claim 1, Nealy discloses a connector assembly capable of use with a tarp, the connector assembly comprising:

male and female connector members, each the connector member comprising:

a base portion having a broad, generally flat bearing face capable of engaging material of a tarp;

one of the connector members comprising:

a handle portion extending from the base portion opposite the bearing face for being gripped and rotated by the fingers of a hand and having an opening capable of attachment of a load thereto;

the male connector member further comprising:

a threaded screw portion extending normal to the bearing face thereof; the screw portion having a tapered, sharply pointed tip capable of piercing material of a tarp; and

the female connector member further comprising:

a threaded socket portion extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figure 6).

As to claim 23, Nealy discloses a connector assembly capable of use with a tarp, the connector assembly comprising:

male and female connector members, each connector member comprising:

a base portion having a broad, generally flat bearing face capable of engaging material of a tarp; and

a flange portion that extends from the base portion opposite and generally normal to the bearing face for being gripped between and rotated by the fingers of a hand, the flange portion having an opening for attachment of a load thereto;

the male connector member further comprising:

a threaded screw portion extending normal to the bearing face thereof, the screw portion having a tapered, sharply pointed tip capable of piercing material of a tarp; and

the female connector member further comprising:

a threaded socket portion extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figure 6).

As to claim 24, Nealy discloses a connector assembly wherein the opening for attachment of a load comprises a bore formed through the flange portion around an axis that extends generally perpendicular to an axis of the screw and socket portions (Figure 6).

As to claim 25, Nealy discloses a connector assembly wherein the opening for attachment of a load comprises a hook portion (a curved portion being defined by the bore in the flange) formed on the flange portion and having a hook opening formed around an axis that extends generally perpendicular to an axis of the screw and socket portions (Figure 6).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Velasquez et al. (US 5,490,309) in view of Nealy.

As to claim 1, Velasquez et al. disclose a connector assembly capable of use with a tarp, the connector assembly comprising:

male and female connector members **28,30**, each the connector member comprising:

a base portion having a broad, generally flat bearing face capable of engaging material of a tarp;

one of the connector members comprising:

a handle portion **32** extending from the base portion opposite the bearing face for being gripped and rotated by the fingers of a hand and having an opening capable of attachment of a load **34** thereto;

the male connector **28** member further comprising:

a notched screw portion **68** extending normal to the bearing face thereof; the screw portion having a tapered, sharply pointed tip **70** capable of piercing material of a tarp; and

the female connector **30** member further comprising:

a notched socket portion **76,78** extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figures 1 and 2).

Velasquez et al. disclose a connector assembly wherein the male connector member comprises a notched screw portion, and the female connector comprises a notched socket portion; instead the male connector member

comprising a threaded screw portion, and the female connector comprising a threaded socket portion.

Nealy teaches a connector assembly comprising a male connector member comprising a threaded screw portion extending normal to a bearing face thereof; and a female connector member comprising a threaded socket portion extending normal to a bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figure 6).

Inasmuch as the references disclose notched screw and socket portions, and threaded screw and socket portions as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

As to claims 2, Velasquez et al. disclose a connector assembly wherein each of the bearing faces comprises a plurality of raised protuberances **54** capable of frictionally engaging material of a tarp so as to prevent accidental loosening of the connector members (Figure 2).

As to claim 3, Velasquez et al. disclose a connector assembly wherein the raised protuberances **54** have substantially rounded contours capable of avoiding damaging material of a tarp that is engaged thereby (Figure 1).

As to claim 4, Velasquez et al. fail to disclose a connector assembly wherein the raised protuberances comprise a plurality of elongate, substantially oval protuberances.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669,

149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connector assembly as disclosed by Velasquez et al. to have elongate, substantially oval protuberances as such practice is a design consideration within the skill of the art.

As to claim 5, Velasquez et al. disclose a connector assembly wherein the base portions of the male **28** and female **30** connector members each comprise a raised, substantially flat-surfaced clamping ring formed annularly around the screw and socket portions, respectively, capable of clamping a tarp about an opening formed by the screw portions so as to prevent tears from propagating therefrom (Figure 1).

As to claim 6, Velasquez et al. disclose a connector assembly wherein the raised protuberances **54** are formed around outer perimeters of the clamping rings on the male and female connector members (Figure 1).

As to claim 7, Velasquez et al. disclose a connector assembly wherein each bearing face is substantially circular so as to evenly distribute loads into material of a tarp that is engaged thereby (Figure 1).

As to claim 8, Velasquez et al. disclose a connector assembly wherein each base portion comprises a radiused rim extending about a perimeter of the circular bearing face capable of progressively engaging material of a tarp so as to avoid damage thereto (Figure 1).

As to claim 9, Velasquez et al. disclose a connector assembly wherein each radiused rim comprises a rounded lip having smoothly contoured radius



that extends away from a plane of the flat bearing face through an arc of about 90 degrees or greater (Figures 1 and 2).

As to claim 10, Velasquez et al. disclose a connector assembly wherein each handle portion **32** comprises a flange portion extending generally normal to the base portion capable of being gripped between a thumb and forefinger (Figure 1).

As to claim 11, Velasquez et al. fail to disclose a connector assembly wherein each flange portion comprises a generally semicircular flange having first and second sided that flare concavely towards the base portion of the connector member.

Nealy teaches a connector assembly wherein a flange portion comprises a generally semicircular flange having first and second sided that flare concavely towards a base portion of the connector member; the concavely flared sides providing for a more easily gripped and rotated handle portion (Figure 6). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the connector assembly as disclosed by Velasquez et al. to have a handle portion having a flange portion having concavely flared sided as taught by Nealy in order provide for a more easily gripped and rotated handle portion.

As to claim 12, Velasquez et al. disclose a connector assembly wherein the opening capable of attachment of a load **34** comprises a bore formed in the flange portion **32** (Figure 2).

As to claim 13, Velasquez et al. disclose a connector assembly wherein the opening capable of attachment of a load **34** comprises a hook portion (curved cross-section portion defined by the bore in flange **32**) mounted on the flange portion (Figure 2).

As to claims 14, 16 and 17, Velaquez et al. disclose a connector assembly capable of use with a tarp, the connector assembly comprising:

male **28** and female **30** connector members, each connector member being unitarily molded and comprising:

a base portion comprising:

a broad, generally flat, substantially circular bearing face capable of engaging material of a tarp;

a plurality of raised, generally circular protuberances **54** formed on the bearing surface capable of frictionally engaging material of a tarp so as to prevent accidental loosening of the connector members, the protuberances further having substantially rounded contours capable of avoiding damaging material of a tarp that is engaged thereby; and

a smoothly radiused lip extending around a perimeter of the circular bearing face capable of progressively engaging material of a tarp so as to avoid damage thereto, the radiused lip extending away from a plane of the bearing surface through an arc of about 90 degrees or greater;

one of the connector members comprising:

a handle portion **32** extending from the base portion opposite the bearing face, the handle portion comprising:

a flange portion **32** extending generally normal to the base portion; and

an opening capable of attachment of a load **34** to the flange portion;

the male connector member **28** comprising:

a notched screw portion **68** extending normal to the bearing face thereof, the screw portion having a tapered, sharply pointed tip **70** capable of piercing material of a tarp; and

the female connector member **30** comprising:

a notched socket portion extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figures 1 and 2).

Velasquez et al. disclose a connector assembly wherein the male connector member comprises a notched screw portion, and the female connector comprises a notched socket portion; instead the male connector member comprising a threaded screw portion, and the female connector comprising a threaded socket portion.

Nealy teaches a connector assembly comprising a male connector member comprising a threaded screw portion extending normal to a bearing face thereof; and a female connector member comprising a threaded socket portion extending normal to a bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith; wherein the screw portion of the male connector member comprises a tapered thread capable of gradually spreading material of a tarp so as to minimize damage to the material as the material is penetrated by the screw portion; and wherein the screw portion

of the male connector member is a two-stage screw comprising a tapered thread portion proximate the pointed tip; and a straight-sided thread portion proximate the base portion of the male connector member, the socket portion of the female connector member having a cooperating straight-sided thread portion formed therein (Figure 6). Inasmuch as the references disclose notched screw and socket portions, and threaded screw and socket portions as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

Velasquez et al. fail to disclose a connector assembly comprising a plurality of generally oval protuberances, the protuberances being arranged radially proximate a perimeter of the circular bearing face so that the long axes thereof are disposed generally perpendicular to a direction of rotation of the bearing face.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the connector assembly as disclosed by Velasquez et al. to have generally oval protuberances, the protuberances being arranged radially proximate a perimeter of the circular bearing face so that the long axes thereof are disposed generally perpendicular to a direction of rotation of the bearing face as such practice is a design consideration within the skill of the art.

Velasquez et al. fail to disclose a connector assembly comprising a handle portion comprising a flange portion having first and second concavely flared sides capable of being gripped between a thumb and forefinger, the sides spreading apart toward the base portion so as to form a thickened area of the flange portion where the flange portion is joined to the base portion.

Nealy teaches a connector assembly comprising a handle portion comprising a flange portion having first and second concavely flared sides capable of being gripped between a thumb and forefinger, the sides spreading apart toward the base portion so as to form a thickened area of the flange portion where the flange portion is joined to the base portion; the concavely flared sides providing for a more easily gripped and rotated handle portion (Figure 6). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the connector assembly as disclosed by Velasquez et al. to have a handle portion having a flange portion having concavely flared sides as taught by Nealy in order provide for a more easily gripped and rotated handle portion.

As to claim 15, Velasquez et al. disclose a connector assembly wherein the radiused lip extends away from the plane of the bearing surface through an arc of about 180 degrees or greater (Figure 2).

As to claim 18, Velasquez et al. disclose a connector assembly wherein the base portions of the male **28** and female **30** connector members each comprise a raised, substantially flat-surfaced clamping ring formed annularly around the screw and socket portions, respectively, capable of clamping a tarp

about an opening formed by the screw portions so as to prevent tears from propagating therefrom (Figures 1 and 2).

As to claim 19, Velasquez et al. disclose a connector assembly wherein the raised protuberances **54** are formed along outer perimeters of the clamping rings on the male and female connector members **28,30** (Figure 1).

As to claim 20, Velasquez et al. discloses a connector assembly wherein each opening capable of attachment of a load **34** comprises a bore formed through the flange portion **32** (Figure 1).

As to claim 21, Velasquez et al. disclose a connector assembly wherein each opening capable of attachment of a load **34** comprises a hook portion (curved cross-section portion defined by the bore in flange **32**) mounted on the flange portion **32** (Figure 2).

As to claim 22, Velasquez et al. fail to disclose a connector assembly wherein the male and female connector members are each formed unitarily of plastic.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the connector assembly as disclosed by Velasquez et al. wherein the male and female connector members are each formed unitarily of plastic as such material is a well-known, widely used and commercially available material within the art.

Applicant is reminded that **process limitations are given little patentable weight in product claims**. The patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production." In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985).

As to claim 23, Velasquez et al. disclose a connector assembly capable of use with a tarp, the connector assembly comprising:

male and female connector members **28,30**, each connector member comprising:

a base portion having a broad, generally flat bearing face capable of engaging material of a tarp; and

a flange portion that extends from the base portion opposite and generally normal to the bearing face capable of being gripped between and rotated by the fingers of a hand, the flange portion having an opening for attachment of a load thereto;

the male connector member further comprising:

a notched screw portion **68** extending normal to the bearing face thereof, the screw portion having a tapered, sharply pointed tip **70** capable of piercing material of a tarp; and

the female connector member further comprising:

a notched socket portion **76,78** extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figures 1 and 2).

Velasquez et al. disclose a connector assembly wherein the male connector member comprises a notched screw portion, and the female connector comprises a notched socket portion; instead the male connector member comprising a threaded screw portion, and the female connector comprising a threaded socket portion.

Nealy teaches a connector assembly comprising a male connector member comprising a threaded screw portion extending normal to a bearing face thereof; and a female connector member comprising a threaded socket portion extending normal to a bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figure 6).

Inasmuch as the references disclose notched screw and socket portions, and threaded screw and socket portions as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

### ***Response to Arguments***

6. Applicant's arguments, filed September 15, 2005, with respect to the rejection(s) of claim(s) 1-22 under Trub (US 1,825,029) and Trub in view of McNatt (US 1,347,6425) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further



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consideration, a new ground(s) of rejection is made in view of Nealy (US 5,137,483) and Velasquez et al. (US 5,490,309).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).



MPF

12/07/05



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